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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,026	03/22/2004	John C. Bayer	C04057US (88155.2C)	1012

22920 7590 01/11/2007  
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EXAMINER
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LIPMAN, BERNARD

ART UNIT	PAPER NUMBER
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1713

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/11/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/806,026

Applicant(s)

BAYER ET AL.

Examiner

Bernard Lipman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 36-39, 44-47 and 64-74 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 36-39, 44-47 and 64-74 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 12/22/06
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Previously Cited Statutes***

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 36-39, 44-47 and 64-74 are rejected under 35 U.S.C. 103(a) as being unpatentable over March or Nosker, each further taken with Machi or Armenti view of Buekett or Hill.

March discloses elongated members useful as railroad ties (col. 6, lines 15-20). The members are made out of a thermoplastic resin and high-density polyethylene (HDPE) is one of a limited number of thermoplastic resins specified which makes its use readily envisaged (col. 3, lines 20-26). The inclusion of fillers in order to reduce the amount of plastic and to provide stiffness is also taught (col. 3, lines 40-45).

Nosker discloses polyethylene composite materials containing a coated fiberglass useful as railroad ties (abstract). Nosker teaches that the polymer component includes about 80-100% HDPE by weight of the polymer component (col. 2, lines 34-39). In addition to the fiberglass component it is also taught to include up to another 10% of fillers in the compositions (col. 6, lines 2-5).

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The effective amounts of filler to use in the compositions of March or Nosker would be well within the skill of the ordinary artisan and would be expected to fall within the instantly claimed ranges. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233; *In re Reese* 129 USPQ 402.

The use of colorants is also taught by March and Nosker (March, col. 3, lines 35-39, Nosker, col. 4, lines 60-63), and it would have been obvious to one of ordinary skill in the art to include a colorant such as a yellow dye for its known and intended purpose. The incorporation of holes for bolting down rails would be an obvious variant as it would be one of only a few known options for fastening the rails. Making a railroad track out of railroad ties would have been an intended purpose and therefore obvious to anyone of ordinary skill in the art.

March and Nosker are deficient in not specifically disclosing (i) calcium sulfate with a purity of 50 to 99 wt.% as the filler, or (ii) the calcium sulfate filler is a fertilizer by-product.

March or Nosker, each further taken with Machi or Armenti, are deficient in not teaching a composition or process which includes admixture of epoxidized soybean oil prior to the melt processing of the composition. Salyer discloses the stabilization of Ziegler type polymers, especially polyethylene against the effects of thermal processing (col. 1, lines 9-15). A distinct class of such stabilizers is epoxy compounds (col. 4, lines 70-72) among which epoxidized oils, including soybean oil, are specifically mentioned

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and claimed (col. 6, lines 51-70 and Claim 4). It would have been obvious to one of ordinary skill in the art to add epoxidized soybean oil as a stabilizing agent to the compositions of March or Nosker, each further taken with Machi or Armenti, in order to protect against the effects of thermal processing as is taught by Salyer, and because epoxidized soybean oil is taught to be equivalent to the other epoxidized oils and esters claimed by Salyer.

March or Nosker each taken with Machi or Armenti are deficient in not teaching that the shape of the railroad tie is wider at the bottom than at the top. However, the manufacture of ties with trapezoidal shapes, i.e., wider at the bottom than the top, is well known as for instance is taught by Buekett or Hill. Thus, it would have been obvious to one of ordinary skill in the art to make railroad ties as taught by March or Nosker, each taken with Machi or Armenti, having a trapezoidal shape, because such is a well known shape as taught by either Buekett or Hill.

3. The Affidavit under 37 CFR 1.132 filed 17 November 2006 is insufficient to overcome the rejections above since the showing is not commensurate in scope to the claims in the polymers used.

4. Applicant's amendment necessitated the "new ground(s) of rejection" presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernard Lipman whose telephone number is 571-272-1105. The examiner can normally be reached on 8-5 Mon-Fri.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Bernard Lipman  
Primary Examiner  
Art Unit 1713

BL/hs